

PCT Application No.: PCT/IB 02/02318  
Applicant: Nokia Corporation  
Our Ref.: 51013 WO (KG/TP)

### New Claims

1. A mobile communication device, comprising:

- 5 - a plurality of device applications including a digital music player (230);
- a mode selector (SK1, SK2, 110) for switching an input mode into a first mode and into a second mode, said mode selector (SK1, SK2, 110) being operable to change modes in at least one application;

10 - a multiple input switch (NK0, NK1, NK2, 100), said switch being operable to receive a user input; and

15 - a controller (210) connected to said multiple input switch (NK0, NK1, NK2, 100) and to said mode selector (SK1, SK2, 110), adapted to generate commands and adapted to transmit said commands to one of the plurality of device applications;

wherein said commands include a first set of commands operable with said input mode being in said first mode and a second set of commands with said input mode being in said second mode; wherein said first set of commands corresponding to said first mode are adapted to control device applications;

characterized in that

20 said second set of commands corresponding to said second mode is adapted to control a set of music player functions, wherein said second mode is exclusively dedicated to said controlling of said music player functions independent from the current operation mode of said mobile communication device.

25 2. Mobile communication device according to claim 1, wherein a plurality of pieces of music

are arranged in a predetermined sequence, characterized in that

30 said second set of commands comprises commands out of a group comprising:

- a starting function of the music reproduction;
- a stopping function of the music reproduction;
- a fast forward winding function of the reproduced piece of music;
- a fast backward winding function of the reproduced piece of music;
- a skipping forward function to a subsequent piece of music; and
- a skipping backward function to a preceding piece of music

35 3. Mobile communication device according to claim 2, characterized in that said fast forward

winding function of the reproduced piece of music and said fast backward winding function

of the reproduced piece of music are activated by pressing and holding said multiple input switch (NK0, NK1, NK2, 100) in said input mode being in said second mode for a certain period of time.

5 4. Mobile communication device according to claim 2 or claim 3, characterized in that said skipping forward function to a subsequent piece of music and said skipping backward function to a preceding piece of music are activated by pressing and releasing said multiple input switch (NK0, NK1, NK2, 100) in said input mode being in said second mode for a certain period of time.

10 5. Mobile communication device according to anyone of the claims 2 to 4, characterized in that said mode selector (SK1, SK2, 110) is reserved for switching exclusively said input mode into said first mode and said second mode.

15 6. Mobile communication device according to anyone of the claims 2 or 5, characterized in that said multiple input switch has at least four switching positions, wherein

- said at least four switching positions comprises a first set of switching positions and a second set of switching positions, said switching positions of said first set and said second set being arranged opposite to each other;
- wherein said multiple input switch operated in one position of said first and/or second set of switching positions causes a command out of said second set of commands corresponding to said input mode being in second mode;
- wherein said multiple input switch operated in one position of said first set of switching positions causes a command out of said second set of commands comprising at least browsing functions to control a user interface and corresponding to said input mode being in first mode.

20 7. Mobile communication device according to claim 6, characterized in that said first set of switching positions is arranged along a first line and said second set of switching positions is arranged along a second line being substantially perpendicular to said first line.

25 8. Mobile communication device according to claim 1, characterized in that

- a third set of commands is provided operable with said input mode being in said first or said second mode, said third set of commands being adapted to control a subset of music player functions.

30

35

9. Mobile communication device according to anyone of the preceding claims, characterized in that at least a set of symbols printed on said multiple input switch (NK0, NK1, NK2, 100) indicates said music player functions to be controlled and wherein said set of symbols and said mode selector (SK1, SK2, 110) have substantially a common color.
10. Mobile communication device according to anyone of the preceding claims, characterized in that said second mode is active during depressing and holding said mode selector (SK1, SK2, 110).
11. Mobile communication device according anyone of the preceding claims, further comprising:
  - a user interface being adapted to control said device applications, characterized in that said first set of commands is adapted to provide a browsing function through said user interface.
12. Mobile communication device according to claim 11, further comprising:
  - a display (240) for displaying said user interface to a user; said display (240) being coupled to said controller (210) via a display driver (230).
13. Mobile communication device according to claim 12, characterized in that a music player control user interface is displayed to said user in said second mode.
14. Mobile communication device according to claim 12 or claim 13, characterized in that said input mode is automatically switched into said second mode in case a music player control user interface is displayed.
15. Method for controlling functions of a digital music player implemented in a mobile communication device, characterized by
  - receiving a mode signal from a mode selector (SK1, SK2, 110);
  - switching an input mode into a first mode or into a second mode in accordance with said received mode signal;
  - receiving an input signal from a multiple input switch (NK0, NK1, NK2, 100);
  - generating a command from said received input signal in combination with said input mode, said command being one of a plurality of commands including a first set of commands generated in said first mode and a second set of commands generated in said second mode; and

- in case said generated command is one of said first set of commands, transmitting said generated command to one of a plurality of device applications including said digital music player to be controlled in accordance with said generated command;

characterized by

5 - in case said generated command is one of said second set of commands, transmitting said generated command to said digital music player to control a set of music player functions; wherein second mode is exclusively dedicated to said controlling of said music player functions independent from the current operation mode of said mobile communication device.

10

16. Method according to claim 15, characterized in that

15 - generating a command from said received input signal in combination with said input mode, said command being one of a plurality of commands including a first set of commands generated in said first mode, a second set of commands generated in said second mode and a third set of commands generated in said first mode and said second mode; and

- in case said generated command is one of said third set of commands, transmitting said generated command to said digital music player to control another set of music player functions.

20